



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS**

BIWEEKLY 2000-12

This electronic copy may be printed and used in lieu of the FAA biweekly paper or microfiche copy.

U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Airworthiness Programs Branch, AFS-610
P. O. Box 26460
Oklahoma City, OK 73125-0460
FAX 405-954-4104

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
--------	-------------	--------------	---------------

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-01

99-27-02		Cessna	170B, 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, +
99-27-12	S 99-26-13	Agusta	Rotorcraft: A109A and A109A II

Biweekly 2000-02

98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-04		Kaman	Rotorcraft: K-1200
2000-01-06		Rolladen	Glider: LS6-c Sailplane
2000-01-09		General Electric	Engine: CJ610, CF700
2000-01-10	S 98-08-07	Pilatus	PC-7
2000-01-11	S 99-17-07	Eurocopter Deutschland	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1
2000-01-16	S 75-23-08 R5	Cessna	T310P, T310Q, T310R, 320, 320A, 320B, 320C, 320D +
2000-01-19		Eurocopter Deutschland	Rotorcraft: EC 135 P1, EC 135 T1
2000-02-12	E	Bell	Rotorcraft: 407

Biweekly 2000-03

2000-02-09		Agusta	Rotorcraft: AB412
2000-02-14	S 98-13-10	Cessna	182S
2000-02-16		Short Brothers	SC-7 Series 2 and SC-7 Series 3
2000-02-32	S 98-12-21	Eurocopter France	Rotorcraft: SA.315B

Biweekly 2000-04

99-25-08		MD Helicopters	Rotorcraft: 500N
2000-02-12		Bell	Rotorcraft: 407
2000-02-25		Mitsubishi	MU-2B Series
2000-02-26		Harbin	Y12 IV
2000-02-27		Empresa	EMB-110P1 and EMB-110P2
2000-02-28		Aerospace Technologies	N22B and N24A
2000-02-29		Socata	TBM 700
2000-02-30		Twin Commander	600 Series
2000-02-31		Pilatus	PC-12 and PC-12/45
2000-03-06		Eurocopter France	Rotorcraft: SE 3130, SA 3180, SE 313B, SA 318B, +
2000-03-17	S 97-23-01	Fairchild	SA226 and SA227 Series
2000-03-18		Partenavia	AP68TP 300 "Sartacus" and AP68TP 600 "Viator"
2000-03-19		Industrie Aeronautiche	Piaggio P-180
2000-04-01		Cessna	172R, 172S, 182S, 206H, and T206H
2000-04-10		Hoffmann	Propeller: HO27() and HO4/27 Series
2000-04-12		Cameron	Balloon: CB2380 and CB2383

Biweekly 2000-05

98-21-21	R1	Bob Fields Aerocessories	Appliance: Electric inflatable door seals
2000-03-09		Cessna	560 Series
2000-04-16		Alexander Schleicher	ASH 25M and ASH 26E sailplanes
2000-04-26		Alexander Schleicher	ASW-27 sailplanes
2000-05-11		Eurocopter France	Rotorcraft: SA.315B, SA.316B, SA.316C, SA 318B, +

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
--------	-------------	--------------	---------------

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-06

2000-04-20		Bell	Rotorcraft: 407
2000-04-21		MD Helicopters	Rotorcraft: MD600N
2000-04-25		Bell	Rotorcraft: 407
2000-05-15		Eurocopter France	Rotorcraft: AS355N
2000-05-16		Sikorsky	Rotorcraft: S-61
2000-05-17	S 99-19-23	Eurocopter France	Rotorcraft: EC 120B
2000-05-23		Ayres	S-2R, S2R-G1, S2R-G5, S2R-G6, S2R-G10, S2R-R3S +
2000-05-24		Honeywell International	Appliance: KAP 140 or KFC 225 autopilot system
2000-06-01		Cessna	150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, +
2000-06-02		Dornier	228-100, 228-101, 228-200, 228-201, 228-202, +
2000-06-03		Bombardier	DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300
2000-06-04		Fairchild	SA226-T, SA226-AT, SA226-T(B), SA227-AT, +
2000-06-06		The New Piper	PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, +

Biweekly 2000-07

2000-06-05		Eurocopter France	Rotorcraft: SA330F, SA330G, SA330J, AS332C, +
2000-06-07		Eurocopter Deutschland	Rotorcraft: MBB-BK 117
2000-07-03		Robinson Helicopter	Rotorcraft: R44

Biweekly 2000-08

2000-04-15		Bell Helicopter	222, 222B, 222U, and 230
99-23-22 R2	Rescission	Transport Category Airplanes	Appliance: Mode "C" Transponder
2000-06-09		Turbomeca	Engine: Arrius 1A Series Turboshaft
2000-06-11		Turbomeca	Engine: Makila 1A and 1A1 Turboshaft
2000-06-12		Turbomeca	Engine: Artouste III B-B1-D Series Turboshaft
2000-07-27		Transport Category Airplanes	Appliance: Honeywell Air Data Inertial Reference Unit
2000-08-02		Agusta	Rotorcraft: A109A, A109AII, and A109C
2000-08-09		Robinson Helicopter	Rotorcraft: R22

Biweekly 2000-09

86-15-10	R2	Eurocopter France	Rotorcraft: AS-350B, BA, B1, B2, C, D, and D1, +
95-19-04 R1	Rescission	Learjet	35, 35A, 36, 36A, 55, 55B, and 55C
2000-06-10		Bell Helicopter	Rotorcraft: 407
2000-08-04		Robinson Helicopter	Rotorcraft: R44
2000-08-06		Eurocopter France	Rotorcraft: SA-366G1
2000-08-05	S 99-02-09	Agusta SpA	Rotorcraft: A109C and A109K2
2000-08-16		Eurocopter Deutschland	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1
2000-08-22		MD Helicopters Inc.	Rotorcraft: 369D, 369E, and 500N, 600N
2000-08-51	E	Teledyne Continental	Engine: IO-360, TSIO-360, LTSIO-360, O-470, IO-470, +
2000-08-52	E, S 98-24-15	Bell Helicopter	Rotorcraft: 204B, 205A, 205A-1, 205B, and 212
2000-08-53	E, S 89-17-03	Bell Helicopter	Rotorcraft: HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, +

Biweekly 2000-10

2000-09-06		Maule Aerospace	MX-7-160C, M-7-260C, M-7-420AC, MX-7-180C, +
2000-09-15		Mitsubishi Heavy Industries	MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, +
2000-10-06		MD Helicopters Inc	Rotorcraft: MD900
2000-10-07		Eurocopter Deutschland	Rotorcraft: EC 135
2000-10-08		Eurocopter France	Rotorcraft: SA-365N1, AS-365N2, and SA-366G1

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
--------	-------------	--------------	---------------

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information

Biweekly 2000-11

99-15-04 R1	R1	The New Piper Aircraft, Inc.	PA-46-310P and PA-46-350P
2000-10-05		Eurocopter France	Rotorcraft: SE.3160, SA.316B, SA.316C, SA.319B, +
2000-10-08	COR	Eurocopter France	Rotorcraft: SA-365N1, AS-365N2, and SA-366G1
2000-10-09		Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, B3, D, And AS355E, +,
2000-10-10	S 98-14-01	Eurocopter France	Rotorcraft:AS-350B, BA, B1, B2, and D, AS-355E, F, +,
2000-10-13		Eurocopter France	Rotorcraft: SA-365N, SA-365N1, AS-365N2, +
2000-10-14		Bell Helicopter Textron	Rotorcraft: 222, 222B, 222U, and 230
2000-10-22		Revo, Incorporated	Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, +
2000-11-52	E	Sikorsky Aircraft Corp.	Rotorcraft: S-76 Series

Biweekly 2000-12

2000-11-04		Commander Aircraft	114TC
2000-11-05		Air Tractor Incorporated	AT-301, AT-401, and AT-501
2000-11-14		Pilatus Aircraft Ltd.	PC-12 AND PC-12/45
2000-11-16	S 97-17-03	Ayres Corporation	S-2R, S2R-R1820, S2R-T34, SR2-T15, S2R-G1, +
2000-11-17	S 98-10-04	Eurocopter France	Rotorcraft: SA-365N1, AS-365N2, and SA-366G1
2000-11-18	S 99-21-24	Eurocopter France	Rotorcraft: SA-365C, C1, C2, and N1, AS-365N2 and +
2000-11-51	E	Teledyne Continental Motors	Engine: (TCM) O-300 Series, IO-360 Series, +
2000-12-03		Eurocopter France	Rotorcraft: AS332L2

BW 2000-12

**COMMANDER AIRCRAFT COMPANY
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-04 COMMANDER AIRCRAFT COMPANY: Amendment 39-11752; Docket No. 99-CE-81-AD.

(a) **What airplanes are affected by this AD?** Model 114TC airplanes, serial numbers 20001 through 20027, certificated in any category.

(b) **Who must comply with this AD?** Anyone who wishes to operate any of the above airplanes on the U.S. Register must comply with this AD.

(c) **What problem does this AD address?** The actions required by this AD are intended to prevent the exhaust stack from detaching from the turbocharger due to failure of the V-band exhaust clamp. This could result in the release of high temperature gases inside the engine compartment with a consequent airplane cabin fire.

(d) **What actions must I accomplish to address this problem?** To address this problem, you must accomplish the following:

Action	Compliance Time	Procedures
(1) Replace the Aeroquip V-band exhaust clamp (Aeroquip part number 00624-55677-340M or Lycoming alternate part number 40D21162-340M) with a part of improved design (Aeroquip part number NH1009399-10)	Accomplish this action within the next 25 hours time-in-service after June 23, 2000 (the effective date of this AD).	Perform this action in accordance with the ACCOMPLISHMENT INSTRUCTIONS section of Commander Aircraft Company Service Bulletin No. SB-114-33A, dated May 9, 2000
(2) Do NOT install an Aeroquip V-band exhaust clamp (Aeroquip part number 00624-55677-340M or Lycoming alternate part number 40D21162-340M) on any affected airplane.	As of June 23, 2000 (the effective date of this AD)	Not Applicable

(e) **Can I comply with this AD in any other way?** You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Fort Worth Airplane Certification Office, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) **Where can I get information about any already-approved alternative methods of compliance?** Contact the Fort Worth Airplane Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5147; facsimile: (817) 222-5960.

(g) **What if I need to fly the airplane to another location to comply with this AD?** The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) **Are any service bulletins incorporated into this AD by reference?** Actions required by this AD must be done in accordance with Commander Aircraft Company Service Bulletin No. SB-114-33A, dated May 9, 2000. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from the Commander Aircraft Company, Wiley Post Airport Hangar 8, 7200 NW 63rd Street, Bethany, Oklahoma 73008. You may look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) **When does this amendment become effective?** This amendment becomes effective on June 23, 2000.

FOR FURTHER INFORMATION CONTACT:

Alma Ramirez-Hodge, Aerospace Engineer, Airplane Certification Office, FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76137; telephone: (817) 222-5147; facsimile: (817) 222-5960.

Issued in Kansas City, Missouri, on May 22, 2000.

Marvin R. Nuss, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

BW 2000-12

**AIR TRACTOR INCORPORATED
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-05 AIR TRACTOR INCORPORATED: Amendment 39-11753; Docket No. 2000-CE-21-AD.

(a) **What airplanes are affected by this AD?** The following airplane models and serial numbers that are:

- (1) certificated in any category; and
- (2) equipped with a 3/16-inch fin front spar fitting and an all metal rudder.

Models	Serial Numbers
AT-301	301-0100 through 301-0736
AT-401	401-0662 through 401-0736
AT-501	501-0002 through 501-0030

Note: This AD does not affect the requirements of AD 97-14-05, Amendment 39-10063 (62 FR 38445, July 18, 1997). AD 97-14-05 requires similar actions to this AD on Models AT-302, AT-400, AT-400A airplanes, and certain Models AT301, AT-401, and AT-501 airplanes that are not affected by this AD.

(b) **Who must comply with this AD?** Anyone who wishes to operate any of the above airplanes on the U.S. Register.

(c) **What problem does this AD address?** The actions required by this AD are intended to detect and correct cracks in the spar plates, which could result in failure of the vertical fin. This condition could lead to loss of directional control and eventual loss of control of the airplane.

(d) **What must I do to address this problem?** To address this problem, you must accomplish the following:

Action	Compliance Time	Procedures
(1) Initial inspection of the fin front spar attachment fittings for fatigue cracks.	At whichever of the following that occurs later: (i) Upon accumulating 4,000 hours time-in-service (TIS); or (ii) Within the next 25 hours TIS after the June 23, 2000 (the effective date of this AD).	Accomplish in accordance with the Inspection Requirements section of Snow Engineering Company Service Letter #138, Issued July 29, 1995; Revised August 7, 1996.
(2) Repetitive inspections of the fin front spar attachment fittings. Repetitive inspection requirement only applies if no cracks are found and you choose not to rework the fin front spar attachment.	Within 100 hours TIS after the initial inspection and thereafter at intervals not to exceed 100 hours TIS if you have no cracks and choose not to rework the fin front spar attachment.	Accomplish in accordance with the Inspection Requirements section of Snow Engineering Company Service Letter #138, Issued July 29, 1995; Revised August 7, 1996.

Action	Compliance Time	Procedures
(3) Rework the fin front spar attachment fittings.	<p>(i) Prior to further flight after any inspection where a crack is found in the front or rear spar area.</p> <p>(ii) This eliminates the repetitive inspection requirement of this AD.</p>	Accomplish in accordance with the Vertical Fin Rework Instructions section of Snow Engineering Company Service Letter #196, Issued February 9, 2000; Revised March 7, 2000.
(4) Optional rework of the fin front spar attachment fittings.	Any time to eliminate the repetitive inspection requirement of this AD.	Accomplish in accordance with the Vertical Fin Rework Instructions section of Snow Engineering Company Service Letter #196, Issued February 9, 2000; Revised March 7, 2000.

Note: The applicability of Snow Engineering Company Service Letter #138 refers to different airplanes than are referenced in this document. AD 97-14-05, Amendment 39-10063 (62 FR 38445, July 18, 1997), covers the airplanes referenced in Snow Engineering Company Service Letter #138. The inspection procedures also apply for the airplanes referenced in this AD. Therefore, Snow Engineering Company Service Letter #138 also applies to this AD, as well as AD 97-14-05. This service letter also specifies repetitive inspection intervals of 25 hours TIS. Paragraph (d)(2) of this AD requires the repetitive inspections at 100 hours TIS.

(e) **Can I comply with this AD in any other way?** You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Fort Worth Airplane Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Fort Worth ACO.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) **Where can I get information about any already-approved alternative methods of compliance?** Contact Rob Romero, Aerospace Engineer, FAA, Fort Worth ACO, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5102; facsimile: (817) 222-5960.

(g) **What if I need to fly the airplane to another location to comply with this AD?** The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) **Are any service bulletins incorporated into this AD by reference?** You must accomplish the actions required by this AD in accordance with Snow Engineering Company Service Letter #138, Revised August 7, 1996, and Snow Engineering Company Service Letter #196, Revised March 7, 2000.

(1) The Director of the Federal Register previously approved the incorporation by reference of Snow Engineering Company Service Letter #138, Revised August 7, 1996, as of August 25, 1997.

(2) The Director of the Federal Register approved the incorporation by reference of Snow Engineering Company Service Letter #196, Revised March 7, 2000 under 5 U.S.C. 552(a) and 1 CFR part 51.

(3) You may get copies from Air Tractor Incorporated, P.O. Box 485, Olney, Texas 76374. You may look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) **When does this amendment become effective?** This amendment becomes effective on June 23, 2000.

FOR FURTHER INFORMATION CONTACT: Rob Romero, Aerospace Engineer, Airplane Certification Office, FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76137; telephone: (817) 222-5102; facsimile: (817) 222-5960.

Issued in Kansas City, Missouri, on May 22, 2000.

Marvin R. Nuss, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

BW 2000-12

**PILATUS AIRCRAFT LTD.
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-14 PILATUS AIRCRAFT LTD.: Amendment 39-11762; Docket No. 99-CE-36-AD.

(a) **What airplanes are affected by this AD?** Models PC-12 and PC-12/45 airplanes, all serial numbers, that are:

- (1) equipped with pneumatic deicing boots; and
- (2) certificated in any category.

(b) **Who must comply with this AD?** Anyone who wishes to operate any of the above airplanes on the U.S. Register. The AD does not apply to your airplane if it is not equipped with pneumatic de-icing boots.

(c) **What problem does this AD address?** The information necessary to activate the pneumatic wing and tail deicing boots at the first signs of ice accumulation is critical for flight in icing conditions. If we did not take action to include this information, flight crews could experience reduced controllability of the aircraft due to adverse aerodynamic effects of ice adhering to the airplane prior to the first deicing cycle.

(d) **What must I do to address this problem?** To address this problem, you must revise the Limitations Section of FAA-approved Airplane Flight Manual (AFM) to include the following requirements for activation of the ice protection systems. You must accomplish this action within the next 10 calendar days after July 17, 2000 (the effective date of this AD), unless already accomplished. You may insert a copy of this AD in the AFM to accomplish this action:

- Except for certain phases of flight where the AFM specifies that deicing boots should not be used (e.g., take-off, final approach, and landing), compliance with the following is required.
- Wing and Tail Leading Edge Pneumatic Deicing Boot System, if installed, must be activated:
 - At the first sign of ice formation anywhere on the aircraft, or upon annunciation from an ice detector system, whichever occurs first; and
 - The system must either be continued to be operated in the automatic cycling mode, if available; or the system must be manually cycled as needed to minimize the ice accretions on the airframe.
- The wing and tail leading edge pneumatic deicing boot system may be deactivated only after:
 - Leaving known or observed/detected icing that the flight crew has visually observed on the aircraft or was identified by the on-board sensors; and
 - After the airplane is determined to be clear of ice.

Note: The FAA recommends periodic treatment of deicing boots with approved ice release agents, such as ICEX, in accordance with the manufacturer's application instructions.

(e) **Have I accomplished the intent of this AD if I have incorporated the latest Pilatus PC12 AFM report into Section 2, Limitations?** As an alternative method of compliance to the actions required by paragraphs (a), (a)(1), and (a)(2) of this AD, you may incorporate Report No.: 01973-001, page 2-12, Revision 9: September 1, 1999, into Section 2, Limitations, of the Pilatus PC12 AFM.

(f) **Can the pilot accomplish the action?** Anyone who holds at least a private pilot certificate, as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), may incorporate the AFM revisions required by this AD. You must make an entry into the aircraft records, showing compliance with this AD, in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(g) **Can I comply with this AD in any other way?** You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager.

Note: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(h) **Where can I get information about any already-approved alternative methods of compliance?** Contact the Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4121; facsimile: (816) 329-4091.

(i) **What if I need to fly the airplane to another location to comply with this AD?** The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(j) **When does this amendment become effective?** This amendment becomes effective on July 17, 2000.

FOR FURTHER INFORMATION CONTACT: Mr. John P. Dow, Sr., Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 506, Kansas City, Missouri 64106; telephone: (816) 329-4121; facsimile: (816) 329-4090.

Issued in Kansas City, Missouri, on May 24, 2000.

James E. Jackson, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

BW 2000-12

**AYRES CORPORATION
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-16 AYRES CORPORATION: Docket No. 98-CE-56-AD, Amendment 39-11764; Supersedes AD 97-17-03, Amendment 39-10105.

(a) **What airplanes are affected by this AD?** Airplanes with the following model and serial number (S/N) designations with or without a -DC or -X suffix, certificated in any category:

Group 1 Airplanes

Model	Serial Numbers
S-2R	5000R through 5099R, except 5010R, 5031R, 5038R, 5047R, and 5085R.
S2R-R1820	R1820-001 through R1820-035.
S2R-T34	6000R through 6049R, T34-001 through T34-143, T34-145, T34-147 through T34-167, T34-171, T34-180, and T34-181*.
S2R-T15	T15-001 through T15-033**.
S2R-G1	G1-101 through G1-106.
* The serial numbers of the Model S2R-T34 airplanes could incorporate T34-xxx, T36-xxx, T41-xxx, or T42-xxx. This AD applies to all of these serial number designations as they are all Model S2R-T34 airplanes.	
** The serial numbers of the Model S2R-T15 airplanes could incorporate T15-xxx and T27-xxx. This AD applies to both of these serial number designations as they are both Model S2R-T15 airplanes.	

Group 2 Airplanes

Model	Serial Numbers
S2R-R1820	R1820-036.
S2R-T65	T65-001 through T65-017.
S2RHG-T65	T65-002 through T65-017.
S2R-T34	T34-144, T34-146, T34-168, T34-169, T34-172 through T34-179, and T34-189 through T34-232. And T34-234.*
S2R-T45	T45-001 through T45-014.
S2R-G6	G6-101 through G6-147.
S2R-G10	G10-101 through G10-136, G10-138, G10-140, and G10-141.
S2R-G5	G5-101 through G5-105.
* The serial numbers of the Model S2R-T34 airplanes could incorporate T34-xxx, T36-xxx, T41-xxx, or T42-xxx. This AD applies to all of these serial number designations as they are all Model S2R-T34 airplanes.	

*Group 3 Airplanes**

Model	Serial Numbers
600 S2D	All serial numbers beginning with 600-1311D.
S-2R	1380R and 1416R through 4999R.
S2R-R1340	R1340-001 through R1340-035.
S2R-R3S	R3S-001 through R3S-011.
S2R-T11	T11-001 through T11-005.
* Any Group 3 airplane that has been modified with a hopper of a capacity over 410 gallons, a piston engine greater than 600 horsepower, or any gas turbine engine, makes the airplane a Group 1 airplane for the purposes of this AD. The owner/operator must inspect the airplane at the Group 1 compliance time specified in this AD.	

Group 4 Airplanes

Model	Serial Numbers
S2R-T34	T34-225, T34-236, T34-237, and T34-238.*
S2R-G1	G1-107, G1-108, and G1-109.
S2R-G10	G10-137, G10-139, and G10-142.
* The serial numbers of the Model S2R-T34 airplanes could incorporate T34-xxx, T36-xxx, T41-xxx, or T42-xxx. This AD applies to all of these serial number designations as they are all Model S2R-T34 airplanes.	

Group 5 Airplanes

Model	Serial Numbers
S2R-T34	T34-239 through T34-266.*
S2RHG-T34	T34HG-102.
S2R-T15	T15-034 through T15-040.**
S2R-T45	T45-015.
S2R-G1	G1-110 through G1-114.
S2R-G6	G6-148 through G6-151.
S2R-G10	G10-143 through G10-160.
* The serial numbers of the Model S2R-T34 airplanes could incorporate T34-xxx, T36-xxx, T41-xxx, or T42-xxx. This AD applies to all of these serial number designations as they are all Model S2R-T34 airplanes.	
** The serial numbers of the Model S2R-T15 airplanes could incorporate T15-xxx and T27-xxx. This AD applies to both of these serial designations as they are both Model S2R-T15 airplanes.	

Group 6 Airplanes

Model	Serial Numbers
S2R	5010R, 5031R, 5038R, 5047R, and 5085R.

(b) **Who must comply with this AD?** Anyone who wishes to operate any of the above airplanes on the U.S. Register.

(c) **What problem does this AD address?** The actions specified by this AD are intended to detect and correct fatigue cracking of the lower spar caps. This could result in the wing separating from the airplane with consequent loss of control of the airplane.

(d) **What actions must I accomplish to address this problem?** To address this problem, you must accomplish the following:

(1) Repetitively inspect, using magnetic particle, ultrasonic, or eddy current procedures, the 1/4-inch and 5/16-inch bolt hole areas on each lower spar cap for fatigue cracking. Reference paragraph (e)(3) and (e)(4) of this AD (including all subparagraphs) to obtain the initial and repetitive inspection compliance times.

(i) The cracks may emanate from the bolt hole on the face of the spar cap or they may occur in the shaft of the hole.

(ii) You must inspect both of these areas.

(2) If any cracking is found during any inspection required by this AD, you must accomplish the following:

(i) Use the cold work process to ream out small cracks as defined in Ayres Service Bulletin No. SB-AG-39, dated September 17, 1996; or replace the affected spar cap in accordance with the maintenance manual; or ream the 1/4-inch bolt holes to 5/16 inches diameter as defined in Part I of Ayres Custom Kit No. CK-AG-29, dated December 23, 1997; and

(ii) Submit a report of inspection findings to the Manager, Atlanta ACO, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; facsimile: (770) 703-6097. You must include the airplane serial number and engine model number; the total number of flight hours on the lower spar cap that is cracked; time on the spar cap since last inspection, if applicable; and the type of inspection used for the last inspection. Indicate if cold working has been accomplished or modifications incorporated such as installation of big butterfly plates. Include the time on the spar cap when the cold working or modifications were accomplished. Indicate which bolt hole is cracked and the length of the crack. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(e) **What is the compliance time of this AD?** The compliance times for each of the actions of this AD are as follows:

(1) Any required repair or replacement: Prior to further flight after the inspection where the crack(s) was/were found.

(2) Reporting requirement:

(i) Submit the report within 10 days after finding any crack(s) during any inspection required by this AD.

(ii) For airplanes where cracking was found during any inspection accomplished in accordance with AD 97-17-03, which is superseded by this AD; or by AD 97-13-11, which was superseded by AD 97-17-03, submit the report within 10 days after the effective date of this AD, unless already accomplished.

(3) Initial Inspection: The following is for the initial inspections required by this AD. The affected airplanes are categorized into six different groups.

(i) *Group 1 Airplanes:* Required upon the accumulation of 2,000 hours time-in-service (TIS) on each lower spar cap or within 50 flight hours after the effective date of this AD, whichever occurs later, unless already accomplished (compliance with AD 97-17-03 or AD 97-13-11).

(ii) *Group 2 Airplanes:* Required upon the accumulation of 2,200 hours TIS on each lower spar cap or within 50 flight hours after the effective date of this AD, whichever occurs later, unless already accomplished (compliance with AD 97-17-03 or AD 97-13-11).

(iii) *Group 3 Airplanes:* Required upon the accumulation of 6,400 hours TIS on each lower spar cap or within 50 flight hours after the effective date of this AD, whichever occurs later, unless already accomplished (compliance with AD 97-17-03 or AD 97-13-11).

(iv) *Group 4 Airplanes:* Required upon the accumulation of 2,500 hours TIS on each lower spar cap or within 50 flight hours after the effective date of this AD, whichever occurs later, unless already accomplished (compliance with AD 97-17-03 or AD 97-13-11).

(v) *Group 5 Airplanes:* Required upon the accumulation of 6,200 hours TIS on each lower spar cap or within 50 flight hours after the effective date of this AD, whichever occurs later, unless already accomplished (compliance with AD 97-17-03 or AD 97-13-11).

(vi) *Group 6 Airplanes:* As presented below.

(A) For S/N 5010R: Required upon the accumulation of 5,530 hours TIS on each lower spar cap or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(B) For S/N 5038R: Required upon the accumulation of 5,900 hours TIS on each lower spar cap or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(C) For S/N's 5031R and 5047R: Required upon the accumulation of 6,400 hours TIS on each lower spar cap or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(D) For S/N 5085R: Required upon the accumulation of 6,290 hours TIS on each lower spar cap or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(4) Repetitive Inspections: The following chart gives the required repetitive inspection intervals based on the work performed and the method of inspection utilized. Each time is hours TIS intervals after the last inspection:

Work Previously Performed	Magnetic Particle	Ultrasonic	Eddy Current
(i) No cracks found previously on wing spar and no optional cold work or bolt hole reaming accomplished.	500 hours TIS	550 hours TIS	700 hours TIS
(ii) One of the following where the airplane does not have butterfly plates, part number (P/N) 20211-09 and P/N 20211-11, installed per CK-AG 29, Part II***. (A) Small cracks repaired through cold work (or done as an option if never cracked) accomplished per SB-AG-39; OR (B) Small cracks repaired through 1/4-inch bolt hole reamed to 5/16 inches diameter (or done as an option if never cracked) per CK-AG-29, Part I; OR (C) Small cracks repaired through previous Alternative Methods of Compliance. **	500 hours TIS	550 hours TIS	700 hours TIS
(iii) One of the following where the airplane has butterfly plates, part number (P/N) 20211-09 and P/N 20211-11, installed per CK-AG-29, Part II***. (A) Small cracks repaired through cold work (or done as an option if no cracks found) accomplished per SB-AG-39; OR (B) Small cracks repaired through 1/4-inch bolt hole reamed to 5/16 inches diameter (or done as an option if no cracks found) per CK-AG-29, Part I; OR (C) Small cracks repaired through previous Alternative Methods of Compliance.**	900 hours TIS	950 hours TIS	1,250 hours TIS
(iv) Cracked wing spar found during previous inspection with wing spar replacement.	Time for initial and repetitive inspection intervals start over when wing spar is replaced.	Time for initial and repetitive inspection intervals start over when wing spar is replaced.	Time for initial and repetitive inspection intervals start over when wing spar is replaced.
* Aircraft S/N's T45-007DC and T45-10DC had modified splice block assemblies installed at Ayres (Ayres/Kaplan Assembly No. 88-251) and must still follow the repetitive inspection intervals listed here.			

****** If a crack is found, the reaming associated with the cold work process may remove a crack if it is small enough. Some aircraft owners/operators were issued alternative methods of compliance with AD 97-17-03 to ream the 1/4-inch bolt hole to 5/16 inches diameter to remove small cracks. Ayres CK-AG-29, Part I, also provides procedures to ream the 1/4-inch bolt hole to 5/16 inches diameter. If you use either of these two methods to remove cracks and the airplane is reinspected immediately with no cracks found, you may continue to follow the repetitive inspection intervals listed above.

******* Group 4 and Group 5 airplanes had the butterfly plates installed at the factory and may follow this repetitive inspection interval.

(f) What procedures must I use to accomplish the actions required in this AD?

(1) Inspections:

(i) For the magnetic particle inspection, utilize the procedures contained in Ayres Service Bulletin No. SB-AG-39, dated September 17, 1996. Use only sections titled "Inspection Accomplishment Instructions" and "Lower Splice Fitting Removal and Installation Instructions." You must follow American Society for Testing Materials (ASTM) E1444-94A, using wet particles meeting the requirements of the Society for Automotive Engineers (SAE) AMS 3046. CAUTION: You must firmly support the wings during the inspection to prevent movement of the spar caps when the splice blocks are removed. This will allow easier realignment of the splice block holes and the holes in the spar cap for bolt insertion.

(ii) The FAA must approve ultrasonic or eddy current inspection procedures. To obtain FAA approval, you must send your proposed procedure to the Manager, Atlanta Aircraft Certification (ACO), One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349. You are not required to remove the splice block for either the ultrasonic or eddy current inspections, unless corrosion is visible.

(iii) All inspections required by this AD must be accomplished by a Level 2 or Level 3 inspector certified for that inspection method using the guidelines established by the American Society for Nondestructive Testing or MIL-STD-410.

(2) Repair: Utilize the procedures contained in Ayres Service Bulletin No. SB-AG-39, dated September 17, 1996; or in Part I of Ayres Custom Kit No. CK-AG-29, dated December 23, 1997 if necessary to remove small cracks. You must then immediately re-inspect and continue to accomplish the repetitive inspections.

(3) Replacement: Utilize the procedures contained in the maintenance manual.

(g) Can I comply with this AD in any other way?

(1) You may use an alternative method of compliance or adjust the compliance time if:

(i) Your alternative method of compliance provides an equivalent level of safety; and

(ii) The Manager, Atlanta Aircraft Certification Office, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager.

(2) This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(3) Alternative methods of compliance approved in accordance with AD 97-17-03, which is superseded by this AD; or in accordance with AD 97-13-11, which was superseded by AD 97-17-03, are approved as alternative methods of compliance with this AD, unless otherwise noted in this AD.

(h) Where can I get information about any already-approved alternative methods of compliance?

Contact the Atlanta ACO, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6082; facsimile: (770) 703-6097.

(i) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD, provided that:

- (1) The hopper is empty.
- (2) Vne is reduced to 126 miles per hour (109 knots) indicated airspeed (IAS).
- (3) Flight into known turbulence is prohibited.

(j) **Are any service bulletins incorporated into this AD by reference?** You must accomplish the actions required by this AD in accordance with Ayres Service Bulletin No. SB-AG-39, dated September 17, 1996, and Ayres Custom Kit No. CK-AG-29, dated December 23, 1997. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from the Ayres Corporation, P.O. Box 3090, One Rockwell Avenue, Albany, Georgia 31706-3090. You can look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(k) **Does this AD affect any other AD actions?** This amendment supersedes AD 97-17-03, Amendment 39-10105.

(l) **When does this amendment become effective?** This amendment becomes effective on July 25, 2000.

FOR FURTHER INFORMATION CONTACT: Satish Lall, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6082; facsimile: (770) 703-6097.

Issued in Kansas City, Missouri, on May 26, 2000.

Larry E. Werth, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

BW 2000-12

**EUROCOPTER FRANCE
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-17 EUROCOPTER FRANCE: Amendment 39-11765. Docket No. 99-SW-45-AD. Supersedes AD 98-10-04, Amendment 39-10515, Docket No. 97-SW-49-AD.

Applicability: Model SA-365N1, AS-365N2, and SA-366G1 helicopters, with tail rotor blade (blade), Part Number 365A12-010-all dash numbers, 365A12-0020-00, 365A33-2131-all dash numbers, or 365A12-0020-02, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect cracks that could lead to delamination of the tail rotor blade Kevlar tie-bar (Kevlar tie-bar), loss of tail rotor control, and subsequent loss of control of the helicopter, accomplish the following:

(a) Within 10 hours time-in-service (TIS), and thereafter at intervals not to exceed 250 hours TIS, inspect each Kevlar tie-bar for a crack or delamination in accordance with paragraph B, Operational Procedure, of Eurocopter France Service Bulletin 05.00.34, Revision 3, dated November 14, 1996.

(b) If any delamination or cracking is found during any of the inspections required by paragraph (a) of this AD, remove the blade and replace it with an airworthy blade before further flight.

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(e) The inspection shall be done in accordance with paragraph B, Operational Procedure, of Eurocopter France Service Bulletin 05.00.34, Revision 3, dated November 14, 1996. The incorporation by reference of that document was approved previously by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, as of June 11, 1998 (63 FR 25158, May 7, 1998). Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on July 12, 2000.

NOTE 3: The subject of this AD is addressed in Direction Generale De L'Aviation Civile (France) AD 92-185-33(B)R4, dated December 4, 1996.

FOR FURTHER INFORMATION CONTACT: Jim Grigg, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5490, fax (817) 222-5961.

Issued in Fort Worth, Texas, on May 26, 2000.

Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.

BW 2000-12

**EUROCOPTER FRANCE
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-18 EUROCOPTER FRANCE: Amendment 39-11766. Docket No. 99-SW-62-AD. Supersedes AD 99-21-24, Amendment 39-11369, Docket No. 98-SW-75-AD.

Applicability: Eurocopter France Model SA-365C, C1, C2, N, and N1; AS-365N2 and N3; and SA-366G1 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within 550 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 550 hours TIS.

To prevent loosening of the main rotor hub blade attach beam spherical thrust bearing bolts (bolts), cracks in the metal components, failure of a spherical thrust bearing (bearing), and subsequent loss of control of the helicopter, accomplish the following:

(a) Inspect the tightening torque of the bolts as indicated by "A" in Figure 1.

(1) If tightening torque is equal to or less than 12 m.daN (88.4 lb-ft), remove the bearing and conduct a dye penetrant inspection for cracks on the two contact surfaces identified as "H" in Figure 1.

(i) If a crack is detected, replace the bearing with an airworthy bearing.

(ii) If no crack is detected, reinstall the bearing.

NOTE 2: Eurocopter France Service Bulletins 05.22, 05.24, and 05.00.39, all dated July 17, 1998, pertain to the subject of this AD.

(2) If the tightening torque is greater than 12 m.daN (88.4 lb-ft), then tighten the torque to 19-22 m.daN (140-162.2 lb-ft).

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on July 11, 2000.

NOTE 4: The subject of this AD is addressed in Direction Generale De L'Aviation Civile (France) AD's 98-383-044(A) for the Model SA-365C, 98-382-024-(A) for the Model SA-366, and 98-384-047(A) for the Model AS-365N helicopters. These AD's are all dated September 23, 1998.

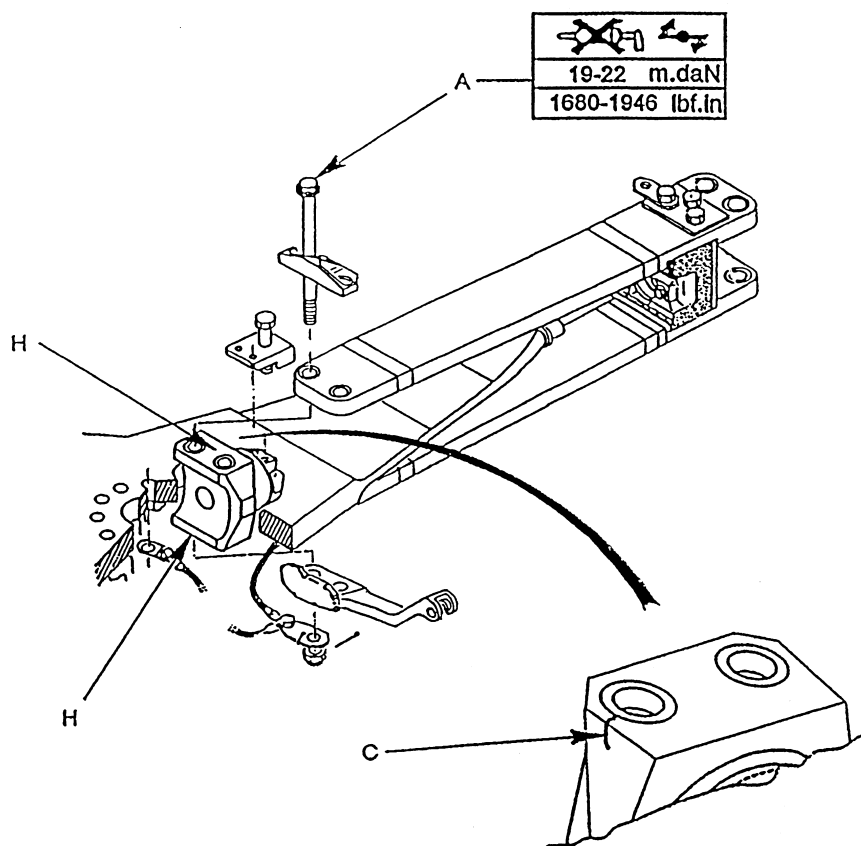


FIGURE 1

FOR FURTHER INFORMATION CONTACT: Paul Madej, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5125, fax (817) 222-5961.

Issued in Fort Worth, Texas, on May 25, 2000.
Eric Bries, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

**TELEDYNE CONTINENTAL MOTORS
AIRWORTHINESS DIRECTIVES
ENGINE
EMERGENCY
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

2000-11-51 Teledyne Continental Motors: Docket No. 2000-NE-19-AD

Applicability: This Airworthiness Directive (AD) is applicable to Teledyne Continental Motors (TCM) O-300 series, IO-360 series, TSIO-360 series, and LTSIO-520-AE reciprocating engines with Unison Industries (Slick) Magnetos, models 6314, 6324, and 6364, with magneto serial numbers of 99110001 through 99129999 inclusive.

Note 1: The magneto serial number (SN) can be found in logbooks or other maintenance records. If the magneto was installed, or if the engine was assembled new, rebuilt, or overhauled before October 31, 1999, it is likely that a suspect magneto is not installed on the engine.

Note 2: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD.

The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Compliance with the following instructions is required within 10 flight hours after the receipt of this Emergency AD, unless they have already been completed.

To prevent engine failure and loss of control of the airplane due to migration of the magneto impulse coupling stop pin out of the magneto frame and into the gear train of the engine, do the following:

Replacement of Magneto

(a) Replace any magneto that has an SN of 99110001 through 99129999, inclusive, with a magneto that does not have a serial number in that range.

(b) Inspect each removed magneto to verify that the impulse coupling stop pin is present. If the pin is missing, do the following:

(1) For O-300, IO-360, TSIO-360 and TSIO-360 engines, do the following:

- (i) Remove magnetos, alternator or generator, and starter adapter from the accessory case.
- (ii) Remove the accessory case from the crankcase and oil sump.
- (iii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.
- (iv) Inspect visible portions of the engine crankcase and accessory case for damage due to the stop pin becoming lodged between the engine gear train and the crankcase or accessory case.
- (v) If the accessory case is damaged, repair or replace the accessory case.
- (vi) If the engine crankcase is damaged, disassemble the engine, and repair or replace the crankcase.
- (vii) Inspect the oil pump drive gear teeth and inner cam gear teeth for damage. Replace any engine drive train component that has been damaged.
- (viii) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.

(2) For LTSIO-520-AE series engines, do the following:

- (i) Remove the starter adapter, fuel pump, vacuum pumps, accessory drive pads, and both magnetos.
- (ii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.
- (iii) If any damage has occurred, remove the engine from the airplane, disassemble the engine, and inspect it for damage. If any damage is found, repair as necessary.
- (iv) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.
- (v) Inspect the interior portions of the engine crankcase for damage due to the stop pin becoming lodged between the gear train and the crankcase. If the crankcase is damaged, repair or replace the crankcase.

(c) After receiving this AD, do not install any Unison Industries magnetos, model 6314, 6324, or 6364 that have a SN of 99110001 through 99129999 inclusive, on any engine.

Note 3: Copies of the applicable service information may be obtained from Teledyne Continental Motors, PO Box 90, Mobile, AL 36601; telephone toll free 1-888-200-7565, or on the TCM internet site "www.tcmlink.com."

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (CHIACO). Operators shall submit their requests through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, CHIACO.

Note 4: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the CHIACO.

(e) **Emergency AD 2000-11-51, issued June 7, 2000, becomes effective upon receipt.**

FOR FURTHER INFORMATION CONTACT: Michael Downs, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, IL, 60018; telephone (847) 294-7870, fax (847) 294-7834.

Issued in Burlington, Massachusetts on June 7, 2000.

David A. Downey, Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

BW 2000-12

EUROCOPTER FRANCE AIRWORTHINESS DIRECTIVES SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

2000-12-03 EUROCOPTER FRANCE: Amendment 39-11781. Docket No. 99-SW-82-AD.

Applicability: Model AS332L2 helicopters, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within 50 hours time-in-service (TIS) or within 50 hours TIS after accumulating 1,000 hours TIS on the transmission flexible mounting plate (plate), whichever occurs last, unless accomplished previously.

To prevent cracking of the plate slats, increased helicopter vibration, loss of transmission mounting integrity, and subsequent loss of control of the helicopter, accomplish the following:

(a) Inspect for interference between the plate, part number (P/N) 332A38-0106-00, the forward shim, P/N 332A22307420, and the aft shim (shim), P/N 332A22307020, in accordance with paragraph 2.B.1 of the Accomplishment Instructions in Eurocopter AS 332 Service Bulletin No. 05.00.54, dated July 8, 1999 (SB). If interference is found, replace the shims and repair the plate in accordance with paragraph 2.B.3 of the Accomplishment Instructions in the SB before further flight.

(b) Visually inspect the plate for a broken slat. If a broken slat is found, replace the plate and the shims with an airworthy plate and shims in accordance with paragraph 2.B.3 of the SB before further flight. Replace the plate with an airworthy plate if slat damage beyond repair limits is found.

(c) Install Eurocopter France MOD 0725946 and Eurocopter France MOD 0726012 at the next major inspection or when the transmission is next removed, whichever occurs first. Installation of both MOD's is considered a terminating action for the requirements of this AD.

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through a FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.

(f) The inspections and modification shall be done in accordance with paragraph 2.B.1 and 2.B.3 of the Accomplishment Instructions in Eurocopter AS 332 Service Bulletin No. 05.00.54, dated July 8, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on July 19, 2000.

NOTE 3: The subject of this AD is addressed in Direction Generale De L'Aviation Civile (France) AD No. 1999-329-015(A), dated August 11, 1999.

FOR FURTHER INFORMATION CONTACT: Uday Garadi, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0170, telephone (817) 222-5123, fax (817) 222-5961.

Issued in Fort Worth, Texas, on June 5, 2000.

Eric Bries, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.